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- (71) Applicants (for all designated States except US): OT-TAWA HEALTH RESEARCH INSTITUTE [CA/CA]; 725 Parkdale Avenue, Ottawa, Ontario K1Y 4E9 (CA). NATIONAL RESEARCH COUNCIL OF CANADA [CA/CA]; 1200 Montreal Road, Bldg. M-58, Room EG12, Ottawa, Ontario K1A 0R6 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GRIFFITH, May [CA/CA]; 5141 Mitch Owens Road, Ottawa, Ontario K1X 1C3 (CA). CARLSSON, David, J. [CA/CA]; 14 Delong Drive, Ottawa, Ontario K1J 7E6 (CA). LI, Fengfu [CA/CA]; 19 Maxton Private, Ottawa, Ontario K1J 1J1 (CA).
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(54) Title: BIO-SYNTHETIC MATRIX AND USES THEREOF

(57) Abstract: A bio-synthetic matrix comprising a hydrogel which is formed by cross-linking a synthetic polymer and a bio-polymer is provided. The matrix is robust, biocompatible and non-cytotoxic and is capable of supporting cell in-growth *in vivo*. The matrix can be tailored to further comprise one or more bioactive agents. The matrix may also comprise cells encapsulated and dispersed therein, which are capable of proliferating upon deposition of the matrix *in vivo*. Methods of preparing the bio-synthetic matrix and the use of the matrix *in vivo* for tissue engineering or drug delivery applications are also provided.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C08F220/54 C08F246/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08F A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, WPI Data, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	WO 92 20721 A (KAO CORPORATION) 26 November 1992 (1992-11-26) the whole document ----	1-50
Y	US 2001/003126 A1 (W. M. RHEE) 7 June 2001 (2001-06-07) cited in the application page 2, paragraph 32 -page 6, paragraph 96 column 8, paragraph 118 -column 10, paragraph 151; claims 1-65 ----- -/--	1-50



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Permentier, W

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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